

Appl. No. 10/089,598  
Amdt. Dated May 18, 2004  
Reply to Office Action of February 18, 2004

Attorney Docket No. 81833.0036  
Customer No.: 26021

REMARKS/ARGUMENTS:

Claims 8 and 38 are canceled without prejudice. Claims 7, 20, 36, 39, 40, 44, and 45 are amended. Claims 6, 7, 9-18, 20-37, and 39-46 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

ALLOWABLE SUBJECT MATTER:

Claims 6, 16, and 25-35 are allowed.

The Office objected to claims 39, 40, 44, and 45 as being dependent upon a rejected base claim, but states that these claims "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." In response, Applicant rewrote claims 39, 40, 44, and 45 in the manner suggested by the Office. Withdrawal of this objection and allowance of claims 39, 40, 44, and 45 is thus respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103:

Claims 7-15, 17-24, 36-38, 41-43, and 46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaziura et al. in view of Ackley, Sr. et al., U.S. Patent No. 4,393,973 and JP 60-72418. This rejection is moot with respect to claim 19 due to its cancellation in the January 8, 2004 response to the office action dated October 9, 2003. This rejection is further moot with respect to claims 8 and 38 due to their present cancellation. The Applicant respectfully traverses this rejection as to claims 7, 9-15, 17, 18, 20-24, 36, 37, 41-43, and 46. Claim 7, as amended, is as follows:

A conveying apparatus comprising:

- a rotary disc portion having a pair of parallel plate members with a region defined there between;

- a gap formed on the region between the pair of parallel plate members;

- a first suctioning device disposed to secure an article on the outer peripheral surfaces of the pair of parallel plate members by extracting air from the gap;

- a linear conveying portion having a pair of parallel conveying belts with a gap formed there between, the linear conveying portion being in communication with the rotary disc portion to transfer the article from the rotary disc portion to the linear conveying portion; and

- supporting members positioned in the pair of parallel plate members to hold the article in place such that the article transfers to the linear conveying portion, wherein the supporting members have a large coefficient of friction.

Applicant respectfully submits that the cited references cannot render claim 7 obvious because the cited references fail to teach or suggest supporting members having a large coefficient of friction. Kaziura and Ackley Sr. fail to teach or suggest supporting members having a large coefficient of friction. Instead, the Office relies on JP 60-72418 for supplying this teaching. The Office states, JP 60-72418,

“discloses the broad teaching of providing a conveying apparatus having a pair of parallel plates, with a gap formed therein where air is suctioned through the gap to hold articles about a periphery of the plates, that include supporting members 2, having O-rings 16, that fit in and around the grooves (between ref nos. 23, 24) formed on the

periphery of plates 5, the members being made of rubber and having a large coefficient of friction. It would have been obvious to one of ordinary skill in the art to provide the rotary suction device and method thereof disclosed by Kaziura et al. in view of Ackley Sr., et al. have supporting members positioned in grooves about the periphery of the opposed plates to allow for an alignment buffer between the plates and the articles transferred as taught by JP 60-72418.”

The Applicant respectfully disagrees. An English translation of JP 60-72418 is submitted concurrently herewith. In JP 60-72418, reference numeral 2 denotes a rotary ring and reference numeral 16 denotes a ring-shaped projection 16 (an annular projection in the submitted translation) not O-rings. JP 60-72418 fails to teach or suggest supporting members having an O-ring and JP 60-72418 similarly, fails to teach or suggest supporting members made of rubber. Applicant cannot find any information related to the composition of reference numeral 16 in Figure 4. In addition, the rotary ring 2 in Figure 5 of JP 60-72478 is comprised of a transparent material such as glass or transparent plastic. In summary JP 60-72418 fails to teach or suggest supporting members having a large coefficient of friction.

JP 60-72418 teaches a rotary ring 2 that is arranged along the outer periphery of a cylinder 10 having an elongated hole 23. Numerous air vent holes are formed on the rotary ring 2 in order to suck and hold a tablet on the air vent holes.

In contrast, in the present invention an article is not held by vent holes at equal intervals. In the present invention, as the article is sucked and held on the rotary disk, the article is slippery. Therefore, the present invention requires supporting members having a large coefficient of friction. In contrast, in JP 60-

72418, since the article is sucked and held in the state of fitting into the vent hole, there is no issue with the article being slippery.

Furthermore, compared to the present invention, the construction of sucking and holding a transferred article on vent holes as taught by JP 60-72418 is complicated. It is difficult to suck and hold the article on the vent hole at equal intervals without the article being scratched. In inspecting the article while transferring, the article may be sucked and held at a different position. In addition, it is also difficult to obtain the most appropriate lighting for side surface inspecting. As a result, it is impossible to adequately inspect all around the side surface. Therefore, it is difficult to inspect stably.

The present invention describes ring-like supporting members having a high coefficient of friction. It is possible to fix the supporting member to the peripheral edge of the rotary disc portion being different from the conveying belt in the linear conveying portion and it is possible to make a cross sectional area of the supporting member small, so that it is possible to stably inspect the conveyed article without working against the side surface inspection of the conveyed article and without slipping the conveyed article. In particular, when the supporting member comprises a structure having a buffering property and an adhesive property, such as an O-ring, it is possible to convey both at a high speed and stably. However, JP60-72418 has no teaching or suggestion of the above.

In light of the foregoing, Applicant respectfully submits that the cited references could not have made claim 7 obvious because the cited references fail to teach or suggest each and every claim limitation. Claims 9-15, 17, 18, 43, and 46 depend from claim 7 and therefore, cannot be rendered obvious over the cited references for the same reasons discussed above. Withdrawal of these rejections is thus respectfully requested.

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Claims 20-24, 36, 37, 41 and 42, although not depending from claim 7, have the limitation of supporting members having a large coefficient of friction. Therefore, claims 20-24, 36, 37, 41 and 42 cannot be rendered obvious over the cited references for the same reasons discussed above.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

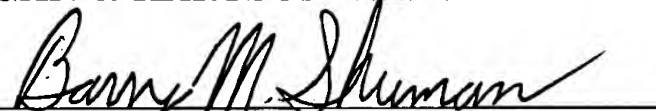
If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6810 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,  
HOGAN & HARTSON L.L.P.

Date: May 18, 2004

By:



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